

ABSTRACT

An adjustable chromatic dispersion compensator is provided, with the possibility of
5 passive athermalisation. The device includes an optical fiber grating which is fixed
on its length to an elongated beam member that has a flexible cantilever portion so
that a non-uniform tensile strain induced in the grating reconfigures the group
delay response. The chirp of the grating is changed by the bending of the bar,
allowing adjustable chromatic dispersion compensation. Adjustment of the central
10 filter wavelength without affecting the grating integrity is further provided. A multi-
material construction allows the package to passively compensate for the natural
temperature dependence of the filter resonance wavelength by varying the strain
in the fiber in response to changes in the ambient temperature.